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BEFORE THE PUBLIC SERVICE COMMISSION

PUBLIC SERVICE COMMISSION

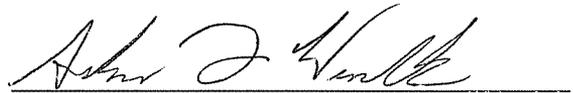
In the Matter of:

EXAMINATION OF THE OPERATION AND)
 REASONABLENESS OF THE OFFSETTING) CASE NO. 2006-00191
 IMPROVEMENT CHARGE OF HENRY COUNTY)
 WATER DISTRICT NO. 2)

VERIFICATION OF TESTIMONY OF ANDREW WOODCOCK

Comes Andrew Woodcock, of the engineering firm Tetra Tech, Inc., engineers for the Henry County Water District No. 2. (hereinafter "Henry District"), after first being duly sworn and states that he personally prepared the attached testimony in the above captioned matter, that he adopts same as his sworn testimony in this matter and that he verifies its authenticity.

Witness the hand of the undersigned this 9th day of August, 2007.



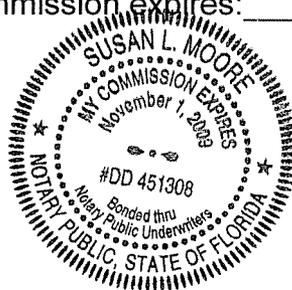
Andrew Woodcock
Tetra Tech, Inc.

STATE OF FLORIDA)

COUNTY OF Orange)

The foregoing VERIFICATION OF TESTIMONY was acknowledged and sworn to before me this 9th day of August, 2007, by Andrew Woodcock, Tetra Tech, Inc, engineers for Henry County Water District #2.

My commission expires: November 1, 2009




 NOTARY PUBLIC, FL. STATE AT LARGE

CERTIFICATE OF SERVICE

I certify that prior to the filing of the foregoing a true copy was this 13 day of August, 2007, mailed to:

Hon. David Edward Spenard
Assistant Attorney General
Office of the Attorney General
Utility & Rate Intervention Division
1024 Capital Center Drive, Suite 200
Frankfort, Kentucky 40601-8204

D. Berry Baxter by Lance Sp...

D. Berry Baxter
Counsel for Henry District

1 PREFILED TESTIMONY OF
2 ANDREW T WOODCOCK, MBA

3

4 **Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?**

5 A. My name is Andrew Woodcock. My business address is 201 East Pine St Suite 1000,
6 Orlando, Florida 32801.

7 **Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

8 A. I am employed by Tetrattech as a Professional Engineer and Senior Project Manager.

9 **Q.WHAT IS YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE?**

10 A. I graduated from the University of Central Florida in 1988 with a B.S. degree in
11 Environmental Engineering and in 1989 with an M.S. degree in Environmental
12 Engineering. In 2001 I graduated from Rollins College with an MBA degree. In 1990 I
13 was hired at Dyer, Riddle, Mills and Precourt as an engineer. In May of 1991 was hired
14 at Hartman and Associates which has since become Tetrattech. I am registered as a
15 Professional Engineer in the State of Florida under License Number 47118 and I
16 currently have an application pending before the National Council of Examiners for
17 Engineering and Survey to obtain a Professional Engineering license in the State of
18 Kentucky. My professional experience has been in the planning and design of water and
19 wastewater systems with specific emphasis on utility valuation, capital planning, utility
20 financing, utility mergers and acquisitions and cost of service rate studies. I also have
21 also experience in utility rate regulatory matters with St. Johns County Florida, Collier
22 County Florida and the Florida Public Service Commission. I have prepared numerous

1 System Development Charge Studies for water and wastewater utilities of varying types
2 and sizes. A copy of my resume' is included in Exhibit ATW-1.

3 **Q. WHAT ARE YOUR PROFESSIONAL AFFILIATIONS?**

4 A. I am a member of the American Water Works Association and Water Environment
5 Federation.

6 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE A RATE REGULATORY
7 BODY AS AN ENGINEERING WITNESS?**

8 A. Yes, I testified in 2002 for the St. Johns County, Florida Regulatory Authority in a
9 special hearing on over earnings case against Intracoastal Utilities, Inc. I am currently a
10 witness for the Florida Office of Public Counsel in a rate case of Aqua Utilities Florida,
11 Inc. before the Florida Public Service Commission.

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

13 A. The purpose of my testimony is to offer my opinion regarding the Offsetting
14 Improvement Charge (OIC) proposed by the Henry County Water District No. 2
15 (HCWD2) and how it applies to the requirements of 807 KAR 5:090. I will also address
16 in my testimony the issues of growth and depreciation and how they relate to System
17 Development Charges in general and specifically to the OIC.

18 **Q. WHAT DOCUMENTS HAVE YOU REVIEWED AND WHAT
19 INVESTIGATIONS AND ANALYSES HAVE YOU MADE IN PREPARATION
20 FOR YOUR TESTIMONY?**

21 A. I have reviewed the Order of PSC Administrative Case No. 375 as well as 807 KAR
22 5:090 which provide for the guidelines of SDCs for water utilities. I have also reviewed
23 the Order and discovery responses relative to PSC Case No. 2001-00393 which

1 authorized the specific OIC charge that is currently being used by HCWD2. Specifically
2 with this case I have reviewed the Order and discovery of Case No. 2006-00191.

3

4 In the course of my work I also reviewed several industry documents including AWWA
5 guidelines, interviewed HCWD2 consultants and personnel and reviewed documentation
6 provided by HCWD2 including audited financial reports, budgets and Annual Reports
7 filed with the Commission.

8 **Q. BASED ON YOUR REVIEW OF THE OIC WHAT IS YOUR OPINION OF**
9 **THE CHARGE?**

10 A. The OIC is a System Development Charge that is designed to partially recover the
11 cost of growth in the HCWD2 service area. The Commission recognizes through the
12 implementation of 807 KAR 5:090 that SDCs are a valid means of recovering the cost of
13 growth from growth. Although the methodology used to develop the OIC differs from
14 standard methods of developing SDCs, it suits the unique case and goals of the HCWD2
15 while meeting the general requirements of SDCs as defined in 807 KAR 5:090. As a
16 result of the unique nature of the OIC many of the requirements specified in 807 KAR
17 cannot be provided however, based on my review and experience the OIC meets the
18 definition of System Development Charge described in 807 KAR 5:090 Section 1 (3).

19

20 I have found that the methodology utilized in preparing the OIC very detailed with
21 respect to industry standards for SDCs and generates an extremely conservative charge
22 that only partially recovers the cost associated with growth in the water system. 807 KAR

1 5:090 Section 5 presents the criteria by which the Commission shall consider an SDC
2 reasonable as one that:

3 “(1) Offsets an increase in cost to fund system expansion to accommodate new growth
4 and demand;

5 (2) Recovers only the portion of the cost of a system improvement that is reasonably
6 related to new demand; and

7 (3) Is based upon the cost of a new facility that will increase capacity”

8 Based on my review and understanding of the development methodology for the OIC as
9 presented before the Commission all three tests are surely met.

10 **Q. EXPLAIN WHY YOU CONSIDER THE OIC TO BE EXTREMELY**
11 **CONSERVATIVE.**

12 A. There are two reasons. First the charge only seeks to recover the costs associated with
13 transmission improvements. There is no consideration at all for the cost of capacity in the
14 existing treatment facilities required to meet growth. Therefore, the cost of water supply,
15 treatment, storage and high service pumping that serves growth is not recovered in the
16 OIC. Depending upon the level treatment and proximity of water supply these costs can
17 be a significant percentage of total cost to serve growth.

18

19 Secondly, the charge is calculated on actual historic cost data that is up to four years old
20 and can be up to six years old before the OIC is recalculated (every two years). This
21 ignores the impact of inflation on the charge. If one looks at the Engineering News
22 Record Construction Cost Index, which is an industry wide resource for inflation in the
23 construction industry, the total impact of inflation in the last four years is 18.1% and in

1 the last six years is 24.6%. Since the OIC relies upon historical costs to pay for future
2 projects the OIC will always fall short of recovering the full costs for hydraulic capacity.

3 **Q, HOW DO SDCS ADDRESS EQUITABILITY OF RATES AND CHARGES?**

4 A. In systems with growth related capital projects that do not have SDCs the existing
5 customers are required to fund the projects through user rates. Therefore, the existing
6 customers are subject to more frequent and larger rate hikes in order to subsidize the
7 growth related projects. SDCs seek to recover the cost of the growth related projects from
8 the growth itself. Therefore equitability in rates and charges is increased with the
9 implementation of SDCs.

10 **Q. WHAT ROLE DOES DEPRECIATION PLAY IN THE DEVELOPMENT OF**
11 **SDCS?**

12 A. SDCs and depreciation are two different but not exclusive means by which a utility
13 can generate capital funding. Depreciation is considered the loss of value in an asset that
14 cannot be recovered through routine maintenance. However, since it is based upon the
15 original cost of the assets already in service the amount of funds received through
16 depreciation will never ultimately fully fund the replacement of existing assets much less
17 address the additional capital needs of a utility such as those required by regulatory
18 changes, increases in level of service or growth.

19

20 As a result a utility system must seek alternative sources of capital funding to meet its
21 capital needs in the form of rate and charge increases. SDCs in general and the OIC in
22 particular are a means by which the utility can recover the capital needs associated with
23 growth by assigning those costs to growth. By not having an SDC charge in place the rate

1 payers of a utility assume the burden of paying for not only the capital needs of the assets
2 that provide them service but also the capital needs of new connections to the utility. The
3 concept of the OIC is to, at least partially assign the cost of growth related improvements
4 to the growth that requires it. Restated the OIC helps achieve equitability between the
5 capital cost to serve existing customers and the capital cost to serve growth.

6 **Q. IS PAYING FOR CAPITAL IMPROVEMENTS THROUGH SYSTEM**
7 **DEVELOPMENT CHARGES AND THEN THROUGH RATES AS**
8 **DEPRECIATION CAUSING THE CUSTOMER TO PAY TWICE FOR THE**
9 **SAME THING?**

10 A. Absolutely not. With SDCs in place the initial cost of providing the service is
11 recovered (or in the case of the OIC partially recovered). The capital component of user
12 rates, be it depreciation, debt service, renewal and replacement etc. pays for
13 improvements to the system that are required to continually provide service to that new
14 customer. The development of SDCs specifically excludes any capital costs that are not
15 necessitated by growth so that there is never any overlap.

16 **Q. WHAT HAVE YOU FOUND TO BE POSITION OF HCWD2 REGARDING**
17 **USING DEPRECIATION AS A FUNDING SOURCE FOR CAPITAL**
18 **PROJECTS?**

19 A. In the budgeting process HCWD2 does not consider depreciation as a capital recovery
20 mechanism. Instead it budgets annually a maintenance amount to address recurring
21 investment needs in the infrastructure. The last rate study that was conducted for
22 HCWD2 in 1996 as part of the RD funding process shows that depreciation was not
23 included as a revenue requirement. However, the study does consider an annual capital

1 improvement expenditure of \$250,000. A summary of the revenue requirements from this
2 rates study is shown in Exhibit ATW-2.

3

4 The analysis conducted by the Commission as part of Interrogatory 18 (Responses dated
5 May 22, 2006) clearly shows the HCWD2 finds that depreciation overstates the current
6 capital requirements of its system. In my opinion this shows that HCWD2 is sensitive to
7 rate pressures on its customers and would rather specifically budget capital costs as
8 required rather than relying upon a non-cash accounting convention.

9 **Q. WHAT AMOUNT OF GROWTH WOULD YOU CONSIDER TO BE**

10 **SIGNIFICANT WITH RESPECT TO SDCS?**

11 A. As far as SDCs are concerned any growth that requires treatment and transmission
12 capacity in the water system is significant. By going through the process of developing
13 SDCs a utility is making the decision that the cost of meeting that growth should be paid
14 by the growth that requires it. Trying to place criteria to determine the significance of
15 growth ignores the unique nature of each utility. For example a utility may experience
16 1% annual growth but have 100,000 customers so that there are 1,000 customers per year
17 which is a significant number of customers. Conversely in a small system of say 1,000
18 customers that adds only 50 customers annually would be seeing a 5% growth rate.

19

20 Beyond the actual growth rate, the configuration of the utility service area, location of
21 supply facilities relative to growth areas, customer density, utilization of facilities and
22 other factors have a great impact on a utility's cost of assets to provide service. A utility
23 with a seemingly low growth rate may have to extend lines many miles and make

1 incremental improvements to plant capacity to meet the demand for service. The capital
2 cost per capacity could be exceedingly high and place a significant burden on the existing
3 customers to fund without SDCs.

4
5 Ultimately it is up to the utility through its knowledge of system assets, customer base
6 and planning requirements to decide the best mechanisms to fund its system
7 improvements based on the needs of the existing customers and the needs of an
8 expanding utility.

9 **Q. EXPLAIN HOW ECONOMIES OF SCALE AFFECT A UTILITY'S REVENUE**
10 **REQUIREMENTS?**

11 A. It is generally accepted that since there are fixed costs associated with the revenue
12 requirements of a utility that as more customers connect and these costs are spread over a
13 growing customer base the revenue requirement per customer should drop. So for the
14 same rates more cash should be available to the utility as the customer base grows.

15 **Q. COULD NOT THE ADDITIONAL CASH GENERATED THEN BE USED TO**
16 **FUND GROWTH RELATED CAPITAL PROJECTS?**

17 A. It has been my experience that economies of scale achieved in growing systems are
18 not of sufficient magnitude to make a significant long term capital contribution. In the
19 current environment utilities are faced with many cost pressures including inflation,
20 increasing regulatory requirements, higher material costs, more complex treatment
21 systems and increasing capital investment for aging infrastructure. In light of these cost
22 pressures the efficiencies achieved through economies of scale generally result in
23 suppression in the magnitude and frequency of rate increases rather than a sustainable

1 cash flow to subsidize growth. If efficiencies of economy of scale were significant over
2 long periods of time then utilities with growth would never require rate increases.

3
4 In the case of HCWD2 a quick analysis of customers versus net operating income shows
5 that economies of scale are not occurring. Exhibit ATW-3 shows that in 1998 net
6 operating income per customer was \$132.64. In 2006 net operating income per customer
7 had declined by almost \$100 to \$32.35 (a 75.68% decrease). During the eight years from
8 1998 to 2006 the customers increased from 4,981 to 6,208, a 24.63% increase. If
9 economies of scale were occurring, as new customer connected revenues would increase
10 faster than expenses and the net income per customer would increase. As the analysis
11 shows rising expenses are rapidly outpacing revenue growth.

12
13 It is also important to note that economies of scale cannot occur without both growth and
14 existing customers. New connections alone would realize no economies of scale without
15 the presence of the existing customers and conversely the existing customers would
16 realize no economies of scale without new customers. In addition, when economies of
17 scale do occur, both new customers and existing customers benefit equally in a reduced
18 cost of service.

19 **Q. WHAT ALLOWANCES SHOULD BE MADE TO SDCS FOR BENEFITS TO**
20 **EXISTING CUSTOMERS?**

21 A. Any capital project or portion of a capital project that benefits the existing customers
22 should not be included in the development of SDCs. In addition SDCs should not be used
23 to fund capital projects or those portions of capital projects that benefit existing

1 customers. Specifically in this case the OIC is based on only the growth element of
2 capital projects as they occur.

3 **Q. HAVE YOU EVER COME ACROSS AN INSTANCE WHERE SDCS WERE**
4 **REDUCED AS A RESULT OF EXISTING DEBT SERVICE PAID BY THE NEW**
5 **CONNECTIONS THAT PAY THE SDC?**

6 A. Yes I have and it occurs in very specific circumstances. Such a consideration is
7 required if the following conditions occur:

- 8 1. A utility has debt funded an expansion related project, and;
- 9 2. SDCs are excluded from revenues pledged against the debt service such that
10 user rates are the only payment mechanism.

11 In this case a new connection that pays the SDC would then also be paying for a portion
12 of the expansion projects through user rates. In order to avoid double recovery the SDC is
13 adjusted downward by the present value of the user rates that pay for the expansion
14 related debt service.

15 In my review of the pertinent portions HCWD2's financial documents I have found that
16 while a few expansion related projects in the OIC database have been funded by debt,
17 SDCs are not excluded from revenues that can pay for system debt. Therefore such an
18 adjustment is not required.

19 **Q. IF THE OIC IS NOT APPROVED BY THE COMMISSION WHAT WOULD**
20 **BE THE IMPACT TO THE UTILITY?**

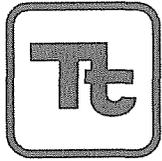
21 A. As stated throughout my testimony the costs that would have been recovered through
22 the OICs would have to be recovered through user rates. HCWD2 would find itself in a

1 position of having to come before the Commission and request a higher rate increase for
2 its customers than would otherwise be necessary.

3 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

4 A. Yes.

5



ANDREW T. WOODCOCK, P.E., M.B.A.

Mr. Woodcock has been involved with many different facets of environmental engineering including planning, design, and permitting of both water and wastewater treatment facilities, wastewater collection systems, pipeline systems, pumping stations and effluent disposal systems. He has special expertise in utility due diligence investigations, utility valuations, financial feasibility analyses and business plans. He is also experienced in the preparation and review of capital improvement programs, master planning and water and wastewater impact fees.

EXPERIENCE

Mr. Woodcock's major design and planning experience includes the design, and permitting functions associated with several water and wastewater projects. Representative water projects include the Venice Gardens Utilities Center Road WTP 0.6 MGD RO facility expansion and the City of Port St. Lucie wellfield expansion. Wastewater design projects include the 0.5 MGD expansion to the Deltona Lakes WWTP and the 1.6 MGD expansion to the City of Sanibel's WWTP both of which include treatment to public access reuse standards.

Mr. Woodcock's water and wastewater utility planning experience includes several master plans and capital improvements programs. Recent planning projects include the City of Winter Haven Water Master Plan, the Town of Palm Beach Water Capital Improvements Program, and the Marion County Utility Consolidation Program.

Mr. Woodcock has participated in over 60 water and wastewater utility valuations and acquisitions for utility systems located throughout the Southeast United States. The acquisition projects cover a wide range of utility system configurations and sizes and include engineering due diligence inspections, valuations, and financing activities associated with the transactions. Major projects include the City of Peachtree City GA acquisition of Georgia Utilities Company, the City of Winter Haven FL acquisition of Garden Grove Water Company and the acquisition of the Deltona and Marion County systems from Florida Water Services Corp.

Additionally, Mr. Woodcock has experience in the review and analysis of water and wastewater utility impact fees and utility financial feasibility studies in support of capital funding including studies for the Cities of Apopka, Brooksville, and Bartow, Pasco County and the Tohopekaliga Water Authority.

Title:
Senior Project Manager

Education:
B.S.E., University of
Central Florida, 1988

M.S.E., University of
Central Florida, 1989

M.B.A., Rollins College,
2001

**Registrations/
Certifications:**
Professional Engineer,
Florida, No. 47118

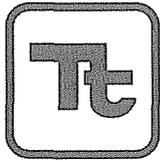
**Professional
Affiliations:**
Water Environment
Federation

American Water Works
Association

Office:
Orlando, Florida

Years of Experience:
1990 – Present

**Years with Tetra
Tech:**
1991 – Present



TETRA TECH

Specific Recent Project Experience Includes:

Deltona, Florida

Utility Acquisition of Florida Water Services Corp (2003)
Consulting Engineers Report, Series 2003; Utility System Revenue Bonds, \$81.72 million.
Water and Wastewater Impact Fee Study (2005)
Water and Wastewater Rate Study (2006)
Utility Replacement Cost Study (2004)

Marion County Florida

Water and Wastewater Impact Fee Study (2005)
Utility Acquisition of Florida Water Services (2003)
Utility Acquisition of AP Utilities, Palm Bay Utilities, Oak Run Utilities, Pine Run Utilities, Quail Meadow Utilities
Consulting Engineering Report, Series 2003; Utility System Revenue Bonds, \$40.19 million
Consulting Engineers Report, Series 2001; Utility System Revenue Bonds, \$27.27 million
Water and Wastewater Utility Master Plan (2005)

City of Orlando, Florida

Research Park Economic Impact Evaluation (2005)

Collier County, Florida

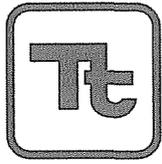
Utility Regulatory Services – Orangetree Utilities (2004)

St. Johns County, Florida

Utility Regulatory Services – Intercoastal Utilities (2002, 2005)

Pasco County, Florida

Acquisition Feasibility Program (2001)
Acquisition of East Pasco Utilities and Forrest Hills Utilities (2002)
Utility Valuation of Lindrick Utilities and Hudson Utilities (2004)
Comprehensive Water, Wastewater and Reclaimed Water Rate and Charge Study (2003, 2007)
Reclaimed Water Rate Study (2005)
Water, Wastewater, and Reclaimed Water Impact Fee Review (2005)
Series 2006 Water and Sewer Refunding Revenue Bonds, \$71.16 million



TETRA TECH

City of Orange City, Florida

Impact Fee Review (2004)

Revenue Sufficiency Study (2006)

City of Naples Florida

Reclaimed Water Project Assessment and Funding Program (2006)

Comprehensive Water, Wastewater and Reclaimed Water Rate Study (2007)

Stormwater Utility Financial Review (2007)

City of Minneola, Florida

Water Impact Fee Update (2006)

Stormwater Utility Rate Study (2006)

Florida State Attorney General (Office of Public Counsel)

Utility Regulatory Services – Aqua America Utilities (2007)

PAPERS AND PRESENTATIONS

"Water and Wastewater Impact Fees: An Overview" Florida Rural Water Association, Utility Management Training, April 4, 2005.

FILE

FINAL ENGINEERING REPORT
WATER SYSTEM IMPROVEMENTS

for

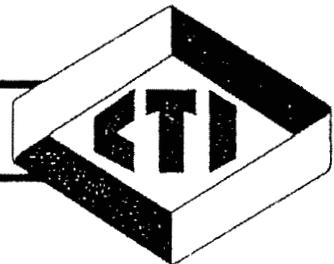
*Henry County Water District No. 2
Post Office Box 219
Campbellsburg, Kentucky 40011*

July 12, 1996

COMPLIANCE THROUGH INNOVATION

Commonwealth Technology, Inc.

ENVIRONMENTAL CONSULTING DIVISION



**PROJECT FINANCING
FINAL ENGINEERING REPORT
PROPOSED WATER SYSTEM IMPROVEMENTS
HENRY COUNTY WATER DISTRICT NO. 2
July 12, 1996**



PROPOSED FUNDING

KIA Construction Loan	\$5,025,000
KIA Debt Service Reserve (10%)	\$575,000
KIA Financing Expense (2.5%)	<u>\$145,000</u>
Total KIA Fund "C" Bond Pool at 7%, 30 years	\$5,745,000
FmHA Loan at 6%, 38 years	\$3,000,000
Rural Business and Cooperative Development Service Loan at 0%, 10 years	\$400,000
Budgeted 5/10-yr Capital Improvements Plan (1996 only)	<u>\$250,000</u>
Total Funding	\$9,395,000

RATES

Current Annual Costs:

Operation and Maintenance (O & M)	\$955,000
Current Debt (Principal and Interest)	\$330,000
Contributed Capital Matching Fund	\$100,000
5/10-year Capital Improvements Plan (years following 1996)	\$250,000

Subtotal Current Revenue Required \$1,635,000

Projected 1st Year Revenue with Current Rates (\$1,313,000)

Subtotal Current Revenue Deficit **\$322,000**

Additional Proposed Annual Project Costs:

Additional O & M	\$195,000
KIA Principal & Interest	\$461,000
KIA Administration Fee (0.2% principal)	\$11,000
FmHA Principal & Interest	\$202,000
RBCDS Principal	\$40,000
FmHA & RBCDS Reserve (10%)	\$24,000

Subtotal Additional Proposed Revenue Deficit \$933,000

Total Additional Revenue Required \$1,255,000

Plus Projected 1st Year Revenue with Current Rates \$1,313,000

TOTAL ANNUAL REVENUE REQUIRED \$2,568,000

EXHIBIT ATW-3

Net Income per Customer

<u>Year</u>	<u>End of Year Total Customers</u>	<u>Operating Income \$</u>	<u>Operating Income \$/Customer</u>
1998	4981	660,700	132.64
1999	5164	606,043	117.36
2000	5311	343,676	64.71
2001	5443	478,575	87.92
2002	5532	454,370	82.13
2003	5947	319,638	53.75
2004	6030	343,413	56.95
2005	6127	283,095	46.20
2006	6208	200,237	32.25
Increase	24.63%		-75.68%